San Joaquin Valley
Unified Air Pollution Control District

01476
JUL 0 1 1998

June 26, 1998 98048

CALFED Bay-Delta Program
Attn: Mr. Rick Breitenbach
1416 Ninth Street, Suite 1155
Sacramento, California 95814

Subject: Environmental Assessment Of CALFED Bay-Delta Program

Dear Mr. Breitenbach:

The San Joaquin Valley Unified Air Pollution Control District has considered the issues which are pertinent to CALFED Bay-Delta Program's potential impacts on air quality and offers the following comments:

The San Joaquin Valley's air quality has been designated nonattainment by the EPA and by the Air Resources Board (ARB) for ozone and PM-10. This designation includes all of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties and the valley portion of Kern County. The Federal Clean Air Act (CAA) and the California Clean Air Act require areas that are designated nonattainment to reduce emissions until standards are met.

Based on our knowledge of the CALFED Bay-Delta Program, we believe that if the Program is properly implemented, it could reduce the amount of PM-10 entrained in the Valley. However, the following four issues need to be addressed in the Programmatic EIS/EIR in order to insure that substantial PM-10 emissions do not occur as a result of this program.

The first issue pertains to need for consistent and reliable water supplies for Valley agricultural operations. The potential for generation of windblown PM-10 emissions from productive irrigated farmland intermittently fallowed due to water unavailability can be up to two or three times that which would normally be expected to occur under irrigated conditions. These increased windblown PM-10 emissions occur because

David L. Crow
Executive Director/Air Pollution Control Officer
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • Fax (209) 233-2057

Northern Region
4230 Kiernan Avenue, Suite 130 • Modesto, CA 95356
(209) 545-7000 • Fax (209) 545-8652

Central Region
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721
(209) 497-1000 • Fax (209) 233-2057

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 862-5200 • Fax (805) 862-5201

C-013767

where cropland is "involuntarily" fallowed due to water unavailability, the common farming practice is to keep these lands in a dry and denuded condition with minimum expenditure. In practical terms, this means discing the fallowed cropland once per year during the late summer. The three major reasons for discing to remove vegetation are to control noxious weeds, prevent brush fires, and maintain farming rights by keeping the land in a condition unattractive to endangered species.

From the PM-10 emissions standpoint, this practice results in the worst possible situation. Soil moisture from irrigation in the Valley is effective in preventing wind erosion from having a major impact on PM-10 emissions from agricultural operations. Under normal farm practice, productive farmland would be disced and listed (shaped into rows) after harvest. During this post harvest tilling, soil moisture would typically be just above the wilting point. This provides sufficient moisture to form a rough, cloddy, soil surface when disced. A rough, cloddy soil surface condition makes soil resistant to wind erosion. The soil may also be listed at this time. As a rough rule of thumb, listing with adequate moisture can be expected to reduce wind erosion by 50%. Actual effectiveness depends on the angle of the rows in relation to the prevailing wind direction. Unirrigated fallowed cropland in the San Joaquin Valley becomes very dry by late summer. Where discing occurs under these conditions, the soil structure is destroyed, leaving the soil surface in a in a dry pulverized erodible condition. As noted above, the resulting PM-10 emissions from wind erosion may be two to three times greater than the PM-10 emissions from wind erosion which would normally occur during an irrigated crop production cycle.

Lands most affected by water curtailments tend to be the more erodible, and more PM-10 emissions-prone, sandy and sandy loam soils on the west side of the Valley. It is known that where sustained wind erosion of soil occurs, gross emissions of PM-10 will also be occurring. Moreover, when soil structure is broken down, wind erosion and PM-10 emissions may occur even when wind velocities are relatively low. Tests in Washington state, for example, have shown that where the soil structure has been destroyed, PM-10 emissions and wind erosion may occur with wind speeds as low as four miles per hour. The end result is that land temporarily removed from agricultural production may produce greater annual particulate matter emissions than land which is agriculturally active.

The second issue relates to the establishment permanent sustainable vegetative cover on lands retired under this project and protecting retired lands from ongoing disturbances. Leaving retired lands in a disturbed condition without establishing sustainable vegetative cover may increase the amount of PM-10 entrained from these lands by several orders of magnitude. Providing sufficient water and resources to establish sustainable vegetative cover will be a critical component in preventing an adverse impact on air quality.

Protecting retired lands from ongoing disturbances which would result from parking vehicles or equipment or operation of off-road vehicles on these lands is critical. If the

C-013768

program does not mitigate ongoing surface disturbances on retired lands, then some of these lands could become major sources of particulate emissions.

A third issue relates to construction and earthmoving activities. Any construction or earth moving activities occurring as part of the Program within the boundaries of the San Joaquin Valley Unified Air Pollution Control District would need to comply with the District's Regulation VIII fugitive dust rules. Regulation VIII is a series of rules designed to reduce emissions of PM-10 resulting from human activity. A copy of the Regulation VIII Rules are enclosed.

The fourth issue relates to potential water conservation and reduced air pollutant emissions from agricultural operations through encouraging and supporting sustainable agricultural practices under the CALFED Bay-Delta Program. Sustainable agricultural production systems based on Biologically Integrated Orchard Systems/ Biologically Integrated Farming Systems have the potential to reduce water consumption, PM-10 emissions and Volatile Organic Compound emissions (which produce ground level ozone) from agricultural operations throughout the San Joaquin Valley.

Thank you for the opportunity to comment on this Draft Programmatic Environmental Assessment for the CALFED Bay-Area Program. If you have any questions on need additional information, please feel free to contact Rodney Langston at (209) 497-1075.

Sincerely,

Dave Mitchell

Dave Mitchell
Supervising Environmental Planner

Enclosure

C-013769

San Joaquin Valley
Unified Air Pollution Control District
1999 Tuolumne Street ▪ Suite 200 ▪ Fresno, CA ▪ 93721

Printed on Recycled Paper

FRESNO JUN 29'98 ::032:: DR METER 7200488 US POSTAGE

22:12 06/29/98 P&DC FRESNO CA 937 165

JUL -1 AM 10:54

WATER RESOURCES
SACRAMENTO

JUL 01 1998

95814-5509 91

C-013770

C-013770